UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/994,583	11/27/2001	Geoffrey Alan Cleary	DIVA/304	7292

56015   7590   02/21/2007
PATTERSON & SHERIDAN, LLP/
SEDNA PATENT SERVICES, LLC
595 SHREWSBURY AVENUE
SUITE 100
SHREWSBURY, NJ 07702

EXAMINER
VAN HANDEL, MICHAEL P

ART UNIT	PAPER NUMBER
2623	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	09/994,583	CLEARY ET AL.
	Examiner	Art Unit	
	Michael Van Handel	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A·SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS·LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any·reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>20 November 2006</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-25,27 and 28</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-25, 27, 28</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   This action is responsive to an Amendment filed 11/20/2006. Claims **1-25, 27, 28** are

pending. Claims **1, 2, 12-14, 21, 28** are amended. Claim **26** is canceled. The examiner hereby

withdraws the objections to claims **1, 21,** and **26** in light of the amendment.

Response to Arguments

1.   Applicant's arguments, regarding claims **1, 2, 12, 28**, filed 11/20/2006, have been fully

considered, but they are not persuasive.

      Regarding claims **1, 2, 12,** and **28**, the applicant argues that Ellis et al. fails to teach or

suggest at least storing, in a mass storage device and for a predefined period of time, compressed

audiovisual data received from said desired transmission channel according to a title plan. The

examiner respectfully disagrees. Ellis et al. discloses queuing record requests in a request queue

110 for consolidation. A consolidator 115 consolidates multiple record requests for the same

programs. The job queue contains program identifiers for the programs that have been selected

for recording on remote server 24 (p. 6, paragraphs 85-87). The examiner acknowledges the

applicant's argument that the programs are selected by the user, but fails to find language in the

claim preventing such a plan to be based on user selection. Thus, the examiner maintains that

Ellis et al. meets the limitation of "storing, in a mass storage device and for a predefined period

of time, compressed audiovisual data received from said desired transmission channel according

to a title plan," as currently claimed.

Ellis et al. further discloses allowing a user to designate programs or groups of programs for recording through program listing screens (p. 11, paragraphs 125, 126, 133). When the user indicates a desire to record a program or program grouping on remote media server 24, the program guide generates a record request that is transmitted to the appropriate remote media server. The record request includes an identifier for the program that the user wishes to record (p. 12, paragraphs 142, 143). The user can also view a directory of programs that the user has selected for recording by a media server, but that have not yet been recorded (p. 13, paragraph 149). Again, since Ellis et al. discloses recording programs contained in program listings or directories, the examiner concludes that Ellis et al. meets the limitation of "storing, in a mass storage device and for a predefined period of time, compressed audiovisual data received from said desired transmission channel according to a title plan," as currently claimed.

Ellis et al. still further discloses that the remote media server can automatically cache or otherwise temporarily record all current programs, programs being viewed, or programs for certain subscribers (p. 15, paragraph 166). This also meets the limitation of "storing, in a mass storage device and for a predefined period of time, compressed audiovisual data received from said desired transmission channel according to a title plan," as currently claimed.

The applicant also argues that Ellis et al. fails to teach or suggest providing to a user stored compressed audiovisual data beginning with a portion of said stored compressed audiovisual data having associated with it a first temporal parameter. The examiner respectfully disagrees. Ellis et al. discloses sending play, fast-forward, rewind, skip, and pause requests to remote media server 24 for processing. The remote media server transmits the program accordingly, such that the user has VCR-like control over a recorded program (p. 15, paragraphs

163-166 & Fig. 22). This meets the limitation of "in response to a user request, providing to said

user stored compressed audiovisual data beginning with a portion of said compressed audiovisual

data having associated with it a first temporal parameter," as currently claimed.

Claim Objections

1.   Claims **13, 14** is objected to because of the following informalities:

Referring to claim **13**, the examiner notes that the phrase "said previously broadcast

programs" lacks antecedent basis. Claim 12 makes mention of "scheduled broadcast programs"

and "selected broadcast programs," but doesn't make mention of "previously broadcast

programs."

Referring to claim **14**, the examiner notes that the phrase "said first and second modes of

operation" lacks antecedent basis. Claim 13 refers to an alternate mode of operation, but does

not make reference to a second mode of operation. The examiner interprets the second mode of

operation as referring to the alternate mode of operation described in claim 13 in the Office

Action below.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this
subsection of an application filed in the United States only if the international application designated the United
States and was published under Article 21(2) of such treaty in the English language.

2.   Claims **1-4, 7-17, 25, 27, 28** are rejected under 35 U.S.C. 102(e) as being anticipated by

Ellis et al.

Referring to claim **1**, Ellis et al. discloses a method, comprising:

- receiving audiovisual data from a desired transmission channel (the recorder 125 is a

   process running on processing circuitry 11 of remote media server 24 and may direct

   the processing circuitry's one or more tuners to particular channels at particular

   times)(p. 6, paragraph 88);

- if said audiovisual data is not compressed according to a predetermined format,

   compressing said audiovisual data according to said predetermined format (p. 6, 7,

   paragraph 89);

- storing, in a mass storage device and for a predefined period of time, compressed

   audiovisual data received from said desired transmission channel according to a title

   plan (p. 6, paragraphs 83, 85-87; p. 11, paragraphs 125, 126, 133; p. 12, paragraphs

   142, 143; & p. 13, paragraph 149); and

- in response to a user request, providing to said user stored compressed audiovisual

   data beginning with a portion of said stored compressed audiovisual data having

   associated with it a first temporal parameter (p. 15, paragraphs 163-166 & Fig. 22).

Referring to claim **2**, Ellis et al. discloses a method in a system adapted to receive

broadcast content from each of a plurality of content sources and forward said received broadcast

content to a transport network for distribution to subscribers, the method comprising:

- in response to a title plan (p. 6, paragraphs 83, 85-87; p. 11, paragraphs 125, 126,

    133; p. 12, paragraphs 142, 143; & p. 13, paragraph 149), storing said broadcast

    content in a server and associating with said broadcast content a temporal parameter

    (p. 7, paragraph 97);

- forwarding said broadcast content to said transport network for distribution in

    accordance with said temporal parameter to a requesting subscriber (the examiner

    notes that the programs can be distributed according to a schedule in an NVOD

    approach)(p. 2, paragraph 13 & p. 7, paragraph 91); and

- in response to a subscriber request for temporally shifted content associated with said

    broadcast content, forwarding said stored broadcast content to said transport network

    for distribution to said requesting subscriber (p. 15, paragraphs 163-166 & Fig. 22).

Referring to claim 3, Ellis et al. discloses the method of claim 2, further comprising

forwarding to said transport network only the received broadcast content presently requested by

any subscriber (p. 7, paragraph 91).

Referring to claim 4, Ellis et al. discloses the method of claim 2, further comprising

storing, in said server, broadcast content presently requested by a threshold number of

subscribers (p. 6, paragraphs 85, 86).

Referring to claim 7, Ellis et al. discloses the method of claim 2, wherein said storing of

said desired broadcast content comprises storing a version of the desired broadcast content to

generate a play track (p. 5, paragraph 74 & p. 7, paragraph 91).

Referring to claim **8**, Ellis et al. discloses the method of claim 2, further comprising, storing selected broadcast content during a predetermined time interval of a broadcast schedule (p. 5, paragraph 76).

Referring to claim **9**, Ellis et al. discloses the method of claim 2, wherein said subscriber request for temporally shifted content is initiated by receiving a subscriber title selection from a time shift interactive programming guide screen (p. 15, paragraphs 162, 163 & Fig. 22).

Referring to claim **10**, Ellis et al. discloses the method of claim 2, wherein said subscriber request for temporally shifted content is initiated by receiving a subscriber title selection from a time shift navigation screen (p. 15, paragraphs 162, 163 & Fig. 22).

Referring to claim **11**, Ellis et al. discloses the method of claim 2, wherein said subscriber request for temporally shifted content is initiated by receiving a pause or rewind subscriber selection while broadcasting of said desired content (p. 17, 18, paragraph 185).

Referring to claims **12** and **28**, Ellis et al. discloses a method/apparatus for providing video information in an interactive information distribution system to a plurality of subscribers, comprising:

- receiving a plurality of scheduled broadcast programs in real-time (p. 5, paragraph 76 & p. 6, paragraph 88);

- selecting a portion of said broadcast programs according to a title plan (p. 6, paragraphs 83, 85-87; p. 11, paragraphs 125, 126, 133; p. 12, paragraphs 142, 143; p. 13, paragraph 149; & p. 15, paragraph 166);

- processing said selected broadcast programs into temporally adjusted content, such that the temporally adjusted content is associated with said selected broadcast

programs (the examiner notes that by recording content, it can be viewed at a

different time than when it was aired. The examiner interprets such content to be

temporally adjusted (p. 15, paragraph 166);

- storing said temporally adjusted content (p. 12, 13, paragraph 143);

- broadcasting said plurality of scheduled broadcast programs to said plurality of

  subscribers (p. 4, paragraph 64 & p. 6, paragraphs 85, 86); and

- in a first mode of operation, associating a temporal parameter to said temporally

  adjusted content and streaming, on-demand, said temporally adjusted content having

  said temporal parameter to those subscribers viewing said selected broadcast

  programs currently being broadcast, such that said subscribers may interactively

  activate such temporally adjusted content contemporaneously with said currently

  broadcast programs (p. 15, paragraphs 163-66).

Referring to claim **13**, Ellis et al. discloses the method of claim 12, further comprising

providing a navigator list (directory) to said subscribers having screens presenting said selected

broadcast programs having temporally adjusted content for viewing and selection, wherein in an

alternate mode of operation, streaming, on-demand, said temporally adjusted content via said

navigator list, such that said subscribers may interactively activate such temporally adjusted

content during viewership of said previously broadcast programs selected from said navigator list

(p. 13, paragraph 145 & Fig. 18a).

Referring to claim **14**, Ellis et al. discloses the method of claim 13, wherein said

subscribers may interactively switch between said first and second modes of operation (the

examiner notes that the remote media server 24 can perform real-time caching of a program,

allowing a user to continue watching later. The user can then catch up to the aired program by fast-forwarding. The user could also switch to a different stored program through the directory listing)(p. 13, paragraph 145; p. 15, paragraphs 165, 166; & Fig. 18a).

Referring to claim **15**, Ellis et al. discloses the method of claim 12, wherein said selecting step comprises:

- monitoring subscriber viewership and selecting those broadcast programs having a viewership exceeding a predetermined metric (p. 6, paragraphs 85, 86 & p. 13, paragraph 148).

Referring to claim **16**, Ellis et al. discloses the method of claim 12, wherein said selecting step further comprises:

- generating title plans for identifying said broadcast programs to be temporally adjusted (p. 15, paragraph 166); and

- defining a temporal availability window for each program (the examiner notes that the remote media server 24 records the program from the position at which the user began recording up to the position of the aired program (p. 15, paragraph 165, 166).

Referring to claim **25**, Ellis et al. discloses the method of claim 12, wherein said first mode of operation further comprises providing an interactive program guide (IPG) to said subscribers having screens presenting said broadcast programs having temporally adjusted content for viewing and selection (p. 13, paragraphs 145-148; & Fig. 18a-d).

Referring to claim **27**, Ellis et al. discloses the method of claim 12, wherein said first mode of operation comprises receiving a temporal control message from a subscriber selected

from the group of temporal control messages consisting of pause, rewind, and fast-forward (p. 9,

paragraph 111 & p. 15, paragraphs 163, 164).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

4.   Claims **5, 6, 17-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis et

al. in view of Moeller et al.

Referring to claims **5** and **6**, Ellis et al. discloses the method of claim 2. Ellis et al.

further discloses allowing a user to pause, stop, rewind, fast-forward, or play a program at a

remote media server (p. 15, paragraph 162). Ellis et al. does not specifically disclose that the

step of storing comprises storing a temporally sub-sampled version of the desired broadcast

content to generate a fast-forward track. Moeller et al. discloses a system that is capable of

transferring or playing a normal play stream at any of various indicated positions or locations

(col. 6, l. 45-49). The media server stores fast forward and fast reverse streams in association

with normal play streams (col. 4, l. 61-65). The fast forward and fast reverse streams have

different presentation rates than the normal play stream and are generated from the normal play

stream (col. 6, l. 51-59). It would have been obvious to one of ordinary skill in the art at the time

that the invention was made to modify the step of storing in Ellis et al. to include storing fast

forward and fast reverse streams in association with a normal play stream, such as that taught by

Moeller et al. in order to decrease latency time at a video server.

Referring to claim **17**, Ellis et al. discloses the method of claim 16. Ellis et al. does not

disclose that the processing step comprises generating real-time encoded play tracks, fast-

forward tracks, rewind tracks, and entry point data (EPD) files associated with each track, said

fast-forward and rewind tracks forming said temporally adjusted content. Moeller et al. discloses

generating fast forward and fast reverse video streams from a normal play stream (col. 6, l. 55-

59) and embedding indexing information within the streams to provide for indexing between the

streams (col. 9, l. 10-14 & col. 11, l. 39-41). It would have been obvious to one of ordinary skill

in the art at the time that the invention was made to modify the processing step of Ellis et al. to

include generating fast forward and fast reverse video streams from a normal play stream and

embedding indexing information within the streams to provide for indexing between the streams,

such as that taught by Moeller et al. in order to efficiently index to different positions in a video

stream in a video delivery system (col. 4, l. 20-23).

Referring to claim **18**, the combination of Ellis et al. and Moeller et al. teaches the

method of claim 17. Ellis et al. further discloses encoding the broadcast programs identified in

the title plan (p. 6, 7, paragraph 89) and buffering said encoded broadcast programs (p. 6, 7,

paragraph 89). Ellis et al. does not disclose that the processing step comprises encoding said

broadcast programs to form said temporally adjusted programs. Moeller et al. discloses

generating compressed fast forward and fast reverse video streams from a normal play stream

(col. 6, l. 55-59). It would have been obvious to one of ordinary skill in the art at the time that

the invention was made to modify the processing step of Ellis et al. to include generating

compressed fast forward and fast reverse video streams from a normal play stream, such as that

taught by Moeller et al. in order to decrease latency time at a video server.

Referring to claim **19**, the combination of Ellis et al. and Moeller et al. teaches the

method of claim 18. Ellis et al. does not disclose that the processing step further comprises:

- receiving packetized transport streams from at least one encoder; and

- inserting title identification codes (TICs) to each packet to enable said transport

   streams to be identified as said real-time encoded play tracks, fast-forward tracks, and

   rewind tracks.

Moeller et al. discloses generating compressed fast forward and fast reverse video

streams from a normal play stream (col. 6, l. 56-59). Moeller et al. further discloses that the

encoded stream includes sequence headers that include presentation timestamps and information

describing the frame rate and picture size (col. 9, l. 57-62). Moeller et al. further discloses

embedding indexing information within the normal play stream and associated trick play streams

to provide for indexing between the streams (col. 9, l. 10-14). It would have been obvious to one

of ordinary skill in the art at the time that the invention was made to modify the processing step

of Ellis et al. to include embedding timestamps, frame rate information, and indexing

information within play streams and trick play streams, such as that taught by Moeller et al. in

order to decrease latency time at a video server.

Referring to claims **20** and **21**, the combination of Ellis et al. and Moeller et al. teaches

the method of claim 19. Ellis et al. does not disclose generating EPD files as fast-forward and

rewind tracks are being created. Moeller et al. discloses generating and embedding index

information within normal play streams and associated trick play streams to provide for indexing

between the streams (col. 9, l. 10-14). It would have been obvious to one of ordinary skill in the

art at the time that the invention was made to modify Ellis et al. to include generating and

embedding index information within normal play streams and associated trick play streams, such

as that taught by Moeller et al. in order to decrease latency time at a video server.

5.   Claims **22-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis et al.

in view of Moeller et al. and further in view of Youden et al.

Referring to claim **22**, the combination of Ellis et al. and Moeller et al. teaches the

method of claim 19, wherein the storing step includes receiving the buffered encoded broadcast

programs (p. 6, 7, paragraphs 89, 90) and storing the real-time play tracks in a plurality of

extents (p. 6, paragraphs 82, 83). Neither Ellis et al. nor Moeller et al. disclose that the storing

step comprises storing said fast-forward tracks in extents in front to back order and storing said

rewind tracks in extents in back to front order. Youden et al. discloses storing selected video

data for a FF version in the same order as the original video data is stored and storing the

selected video data for the FR version in reverse order to the original version of the video data

(col. 4, l. 3-7). It would have been obvious to one of ordinary skill in the art at the time that the

invention was made to modify the storing step in the combination of Ellis et al. and Moeller et al.

to include storing video data for a FF version in the same order as the original video data is

stored and storing the selected video data for the FR version in reverse order to the original

version of the video data, such as that taught by Youden et al. in order to decrease latency time at

a video server.

Referring to claim **23**, the combination of Ellis et al., Moeller et al., and Youden et al.

teaches the method of claim 22, where said storing step further comprises storing selected

broadcast programs from a particular channel for a fixed window of time (Ellis et al. p. 6,

paragraph 87).

Referring to claim **24**, the combination of Ellis et al., Moeller et al., and Youden et al.

teaches the method of claim 22, where said storing step further comprises storing selected

broadcast programs from a plurality of channels (Ellis et al. p. 6, paragraph 88).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Michael Van Handel whose telephone number is 571-272-5968.

The examiner can normally be reached on 8:00am-5:30pm Mon.-Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chris Kelley can be reached on 571-272-7331. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MVH

CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600